

**Notice of Allowability**

Application No.

09/879,658

Examiner

Ayal I. Sharon

Applicant(s)

OHKAMI, TAKAHIDE

Art Unit

2123

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the telephone interview of 1/20/06.
2. ☒ The allowed claim(s) is/are 6,7 and 10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20060120.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## **DETAILED ACTION**

### ***Introduction***

1. The non-final Office Action mailed 1/20/2006 is withdrawn.
2. Applicant's Representative Mr. Jeffrey Miller (Reg. No. 35,287) cancelled claims 1-5 in a Telephone Interview conducted on 1/20/06, immediately following the mailing of the now-withdrawn non-final Office Action. The Interview Summary accompanies this action.
3. Claims 6-7 and 10 of U.S. Application 09/879,658, originally filed on 06/11/2001 are currently pending. The application claims priority to provisional application 60/242,407, filed on 10/20/2000.

### ***Examiner's Amendment***

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
5. Authorization for this examiner's amendment was given in a telephone interview with Applicant's Representative Mr. Jeffrey Miller (Reg. No. 35,287) on 1/20/06.
6. The application has been amended as follows: Claims 1-5 are cancelled.

***Reasons for Allowance***

7. Claims 6-7 and 10 are allowed.
8. The following is an examiner's statement of reasons for allowance.
9. Examiner finds that Applicant's arguments regarding claims 6-7 in pp.21-22 of the Appeal Brief filed on 10/31/05 are persuasive.
10. Claims 6-7 are allowed. The Beardslee reference expressly teaches (see col.13, lines 53-67) the following regarding design instrumentation circuitry (DIC) that is synthesized into the target logic design:

Design instrumentation (DI) is a process by which a HDL description of an electronic system is analyzed, and then a DIC computed. The DIC is thereafter incorporated (e.g., added) into the electronic system to facilitate debugging. The DIC can be added to the electronic system in a variety of ways. In one embodiment, DIC can be added to the electronic system by adding an HDL description of the DIC to the HDL description of the electronic system. In another embodiment, the DIC can be added to the electronic system during synthesis. The DIC provides mechanisms to control the examination and/or modification of a running electronic system. Thus, the DIC allows to analyze, diagnose, and/or debug the DUT by giving detailed and accurate information about its current state of operation, as well as the state history.

However, Beardslee does not expressly teach that the DIC contains the "protocol logic synthesized into the target logic circuit design", as claimed in Claim 6 in the instant application. Claim 6 is therefore allowable. Dependent claim 7 depends from allowable Claim 6.

11. Claim 10 is allowed. In a previous Office Action, Claim 10 was objected to as being dependent upon a rejected base claim. The previously cited prior art (Sample, Koch, Patel, X.25), and the newly cited prior art (Beardslee) do not expressly teach, either individually or in combination, the following limitations:

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creating a finite state machine to indicate that the packet-based protocol logic is in either non-memory mode, continuous memory write mode, or continuous memory read mode; and

creating a state transition control that selects said non-memory mode when said continuous memory operation ends, said state transition control further selecting said continuous memory write mode when said continuous memory write operation is initiated, said state transition control further selecting said continuous memory read mode when said continuous memory read operation is initiated.

Applicants have amended Claim 10 to incorporate the limitations of base Claim 9.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749.

Any response to this office action should be faxed to (571) 273-8300, or mailed to:

USPTO  
P.O. Box 1450  
Alexandria, VA 22313-1450

or hand carried to:

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USPTO  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon  
Art Unit 2123  
January 20, 2006

  
Paul L. Rodriguez  
Primary Examiner  
Art Unit 2125  
1/20/06